



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/359,416	07/23/1999	YOUICHI YAMADA	P7156-9039	2778

4372 7590 08/03/2006

ARENT FOX PLLC  
1050 CONNECTICUT AVENUE, N.W.  
SUITE 400  
WASHINGTON, DC 20036

EXAMINER
----------

MEI, XU

ART UNIT	PAPER NUMBER
----------	--------------

2615

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/359,416

Applicant(s)

YAMADA ET AL.

Examiner

Xu Mei

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

1. This communication is responsive to the applicant's amendment dated 04/20/2006.

### ***Response to Arguments***

2. Applicants' arguments filed 04/20/2006 have been fully considered but they are not persuasive. The amended memory storing means for storing a sequential series of past operations that are read-out successively is still read on Suzuki as discussed below.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (US Patent 5,060,272).

Regarding Claim 1, Suzuki discloses An audio signal processing apparatus (Fig. 1), comprising; signal processing means for processing audio signals fed from outside equipment (input signal to processing circuit 40); operating means for setting parameters in order for said signal processing means to process the audio signals (Fig.

Art Unit: 2615

2); storing means for storing a sequential series of past operations that can be read out successively (Fig. 1, memory 38, for storing the last position information of operation positions of all fader operators, each last position information of the faders is stored in a sequential series manner, i.e., one after another, and the last operation position information of the respective fader operators 1-8 is read or can be read from the memory 38 according to the fader function successively according to the selection of the operated switches, see col. 3, line 45-col. 4, line 13), said past operations being associated with a series of movements of said operating means (Fig. 2, faders 1-8); designating means capable of automatically effecting a desired treatment in accordance with the past operation data stored in the storing means (Suzuki discloses faders driven by motor to corresponding memory locations, Col. 3, lines 48-57); and control means for setting parameters in order for said signal processing means to process the audio signals in accordance with said desired treatment when said designating means is operated (Fig. 1, microcomputer and control system 36).

Regarding Claim 2, Suzuki further discloses a first executing means (faders 1 and 2) enabling said storing means (38) to store said series of past operation data (position of faders 1 and 2), a second executing means (control system 36) enabling said signal processing means (40) to process the audio signals in accordance with said series of past operation data stored in said storing means (Col. 3, lines 48-57).

Regarding Claim 7, Suzuki discloses an audio signal processing apparatus, comprising; a signal processor which processes audio signals fed from outside equipment (Fig. 1, processor 40); an operating device which sets parameters in order

Art Unit: 2615

for the signal processor to process the audio signals (Fig. 2); a memory device for storing a sequential series of past operations that can be read out successively (memory 38 for storing the last position information of operation positions of all fader operators, each last position information of the faders is stored in a sequential series manner, i.e., one after another, and the last operation position information of the respective fader operators 1-8 is read or can be read from the memory 38 according to the fader function successively according to the selection of the operated switches, see col. 3, line 45-col. 4, line 13), the past operations being associated with a series of movements of the operating device (Fig. 2, faders 1-8); a designating device capable of automatically effecting a desired treatment in accordance with the past operation data stored in the memory device (Suzuki discloses faders driven by motor to corresponding memory locations, Col. 3, lines 48-57); and a controller which sets parameters in order for the signal processor to process the audio signals in accordance with the desired treatment when the designating device is operated (Fig. 1, microcomputer and control system 36).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2615

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki as applied to claim 1 in view of Silfvast et al. (Hereinafter "Silfvast") (WO 93/03549).

Regarding Claim 3, Silfvast discloses a apparatus as stated apropos of claim 1 above including sliding faders to set parameters 1-8 but does not disclose operating means including a rotational body capable of setting parameters. It is well known in the art that rotational bodies such as rotary knobs are used to set parameters. Silfvast discloses an apparatus used to process audio signals and return faders and a rotary knob to a stored position (Page 28). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a rotary knob as a device to select parameters to process audio signals for a desired output.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki/Silfvast as applied to claim 3 above, and further in view of Silfvast et al. (Hereinafter "Silfvast '241") (US Patent 6,438,241).

Regarding Claim 4, Suzuki/Silfvast discloses an apparatus as stated apropos of claim 3 above but does not disclose the rotational body is connected with an optical pulse encoder for detecting angular velocity and rotating direction. Silfvast '241 discloses a display such as an array of lights wherein a sensor is coupled with the rotor, which senses its relative rotation wherein the display of lights is in response to the sensor to indicate a value of a parameter (col. 2, lines 40-56) in order to display indicating values by angular position. Therefore, it would have been obvious to one of

Art Unit: 2615

ordinary skill in the art at the time the invention was made to detect the angular velocity of the rotational body in order to display indicating values.

Regarding Claim 5, Suzuki/Silfvast discloses everything claimed as applied above (see claim 4). It is inherently taught that the faster the knob is turned the quicker the sensor picks up the information in order to display the light referencing the position of the parameter. Therefore the rotating direction and the speed of the knob being turned (angular velocity) is inherently used to calculate the rotating amount and which the position setting is verified by the display.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki as applied to claim 1 above.

Regarding claim 6, Suzuki further discloses a device which imparts effects on line inputs (Col. 1, lines 5-13). It is also well known in the art that a mixing console is capable of controlling, mixing and designing audio sounds of all ranges and therefore commonly allows the user to adjust the pitch or frequency of a sound to produce a desired output of audio such as Wah, Zip, Ring, etc. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include signal processing to produce an effect as disclosed by Suzuki.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xu Mei whose telephone number is 571-272-7523. The examiner can normally be reached on Monday-Friday (9:30-6:00).

Art Unit: 2615

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Xu Mei  
Primary Examiner  
Art Unit 2615  
07/26/2006